# INSPECTION REPORT

| APPLICABLE DOC. REF. | PROC. REF. |
|---|---|
| AMS02-PDS PFM Manufacturing and Inspection Plan PDS-PL-CGS-001 is. 1 | N.A. |

ITEM INSPECTED (Name, P/N, S/N) AMS02-PDS PFM – Visual inspection of some Piggy Back Boards before partially conformal coating –- Inspection Point.

REQUIREMENT SATISFIED

Manufacturing according to aerospace standards

INSPECTION (Action/Results)

## DESCRIPTION

Inspection was performed at Carlo Gavazzi Space premises starting on 24 July 2008 and was carried out on the following boards before partially conformal coating applied only on one layer, detail of the inspected boards were below reported:

1) PB2 FRONT PANEL BOARD ASSY p/n:11-AMS02PDS-730.00 s/n:07/020/F.
2) PB2 FPGA BOARD ASSY p/n:11-AMS02PDS-710.00 s/n:07/038/F.
3) PB2 EMI FILTER BOARD ASSY p/n:11-AMS02PDS-720.00 s/n:07/018/B.
4) AUX DC/DC BOARD ASSY p/n:11-AMS02PDS-740.00 s/n:07/016/A.
5) PB2 EMI FILTER BOARD ASSY p/n:11-AMS02PDS-720.00 s/n:07/018/C.
6) PB2 FRONT PANEL BOARD ASSY p/n:11-AMS02PDS-730.00 s/n:07/020/G.
7) PB2 FPGA BOARD ASSY p/n:11-AMS02PDS-710.00 s/n:07/038/G.
8) AUX DC/DC BOARD ASSY p/n:11-AMS02PDS-740.00 s/n:07/015/D.

## HARDWARE REVIEW

1) PB2 FRONT PANEL BOARD ASSY p/n:11-AMS02PDS-730.00 s/n:07/020/F, Assy:11-AMS02PDS-730.00 rev.A, Parts List: 11-AMS02PDS-730.01 rev.A, Electrical Scheme: 11-AMS02PDS-730.02 rev.A, Master PCB: FSL-030141-DR-03-CGS rev./.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-730.01 rev A - A1 can be considered closed.
- 11-AMS02PDS-730.01 rev A - A2 can be considered closed.
- 11-AMS02PDS-730.01 rev A – A4 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok.

| | Operator | Quality Assurance | C.C. |
|---|---|---|---|
| Signature | | E. FRANCINI | C. CINQUEPALMI |
| Date | | 24/07/08 | 24/7/08 |

## INSPECTION REPORT

| APPLICABLE DOC. REF. | PROC. REF. |
|---|---|
| See page 1 | See page 1 |

ITEM INSPECTED (Name, P/N, S/N)

See page 1

REQUIREMENT SATISFIED

See page 1

INSPECTION (Action/Results)

2) PB2 FPGA BOARD ASSY p/n:11-AMS02PDS-710.00 s/n:07-038 / F, Assy:11-AMS02PDS-710.00 rev./, Parts List: 11-AMS02PDS-710.01rev.A, Electrical Scheme: 11-AMS02PDS-710.02 rev./, Master PCB:11-AMS02PDS-710.03 rev./.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-710.01 rev A – A1 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A2 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A3 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A6 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A13 can be considered closed.

The following NCR was presented during the inspection:

NCR-PDS-CGS-C-086(pull down MUX problem), NCR classified "minor" is closed.

The H/W has been visually inspected and is ok: no damage, visible clean is ok.

3) PB2 EMI FILTER BOARD ASSY p/n:11-AMS02PDS-720.00 s/n:07/018/B, Assy:11-AMS02PDS-720.00 rev./, Parts List:11-AMS02PDS-720.01 rev.A, Electrical Scheme:11-AMS02PDS-720.02 rev./, Master PCB: SPO-PD-020503-DR-03-CGS rev./.

The following NCR was presented during the inspection:

- NCR-PDS-CGS-C-016(electronic components assembly problems), NCR classified "minor" is closed.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-720.01 rev A - A1 can be considered closed.
- 11-AMS02PDS-720.01 rev A – A2 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok.

| | Operator | Quality Assurance | C.C. |
|---|---|---|---|
| Signature | | E. FRANCINI | C. CINQUEPALMI |
| Date | | 24/07/08 | 24/7/8 |

## INSPECTION REPORT

| APPLICABLE DOC. REF.<br>See page 1 | PROC. REF.<br>See page 1 |
|---|---|
| ITEM INSPECTED (Name, P/N, S/N)<br>See page 1 | |
| REQUIREMENT SATISFIED<br>See page 1 | |

INSPECTION (Action/Results)

4) AUX DC/DC BOARD ASSY p/n:11-AMS02PDS-740.00 s/n:07/016/A, Assy:11-AMS02PDS-740.00 rev./, Parts List:11-AMS02PDS-740.01 rev./, Electrical Scheme:11-AMS02PDS-740.03 rev./, Master PCB:SPO-PD-020010-DR-03-CGS rev./.

The following NCRs were presented during the inspection:

- NCR-PDS-CGS-C-039(electrical connection missing), NCR classified "minor" is closed.
- NCR-PDS-CGS-C-044(OVC protection improvement), NCR classified "minor" is closed.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-740.01 rev / - A1 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A2 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A3 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A4 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A12 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A14 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A15 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A18 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok.

5) PB2 EMI FILTER BOARD ASSY p/n:11-AMS02PDS-720.00 s/n:07/018/C, Assy:11-AMS02PDS-720.00 rev./, Parts List:11-AMS02PDS-720.01 rev.A, Electrical Scheme:11-AMS02PDS-720.02 rev./, Master PCB: SPO-PD-020503-DR-03-CGS rev./.

The following NCR was presented during the inspection:

- NCR-PDS-CGS-C-017(electronic components assembly problems), NCR classified "minor" is closed.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-720.01 rev A - A1 can be considered closed.
- 11-AMS02PDS-720.01 rev A – A2 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok.

| | Operator | Quality Assurance | C.C. |
|---|---|---|---|
| Signature | | E. FRANCINI | C. CINQUEPALMI |
| Date | | 24/07/08 | 24/7/8 |

## INSPECTION REPORT

| APPLICABLE DOC. REF. | PROC. REF. |
|---|---|
| See page 1 | See page 1 |

ITEM INSPECTED (Name, P/N, S/N)

See page 1

REQUIREMENT SATISFIED

See page 1

INSPECTION (Action/Results)

6) PB2 FRONT PANEL BOARD ASSY p/n:11-AMS02PDS-730.00 s/n:07/020/G, Assy:11-AMS02PDS-730.00 rev.A, Parts List: 11-AMS02PDS-730.01 rev.A, Electrical Scheme: 11-AMS02PDS-730.02 rev.A, Master PCB: FSL-030141-DR-03-CGS rev./.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-730.01 rev A - A1 can be considered closed.
- 11-AMS02PDS-730.01 rev A - A2 can be considered closed.
- 11-AMS02PDS-730.01 rev A – A3 can be considered closed.
- 11-AMS02PDS-730.01 rev A – A4 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok..

7) PB2 FPGA BOARD ASSY p/n:11-AMS02PDS-710.00 s/n:07-038 / G, Assy:11-AMS02PDS-710.00 rev./, Parts List: 11-AMS02PDS-710.01rev.A, Electrical Scheme: 11-AMS02PDS-710.02 rev./, Master PCB:11-AMS02PDS-710.03 rev./.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-710.01 rev A – A1 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A2 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A3 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A6 can be considered closed.
- 11-AMS02PDS-710.01 rev A – A13 can be considered closed.

The following NCR was presented during the inspection:

NCR-PDS-CGS-C-086(pull down MUX problem), NCR classified "minor" is closed.

The H/W has been visually inspected and is ok: no damage, visible clean is ok.

| | Operator | Quality Assurance | C.C. |
|---|---|---|---|
| Signature | | E. FRANCIM | E. CINQUERACHI |
| Date | | 24/7/08 | 24/7/08 |

## INSPECTION REPORT

| APPLICABLE DOC. REF. | PROC. REF. |
|---|---|
| See page 1 | See page 1 |

ITEM INSPECTED (Name, P/N, S/N)

See page 1

REQUIREMENT SATISFIED

See page 1

INSPECTION (Action/Results)

8) AUX DC/DC BOARD ASSY p/n:11-AMS02PDS-740.00 s/n:07/015/D, Assy:11-AMS02PDS-740.00 rev./, Parts List:11-AMS02PDS-740.01 rev./, Electrical Scheme:11-AMS02PDS-740.03 rev./, Master PCB:SPO-PD-020010-DR-03-CGS rev./.

The following NCRs were presented during the inspection:

- NCR-PDS-CGS-C-039(electrical connection missing), NCR classified "minor" is closed.
- NCR-PDS-CGS-C-044(OVC protection improvement), NCR classified "minor" is closed.

The following PLVSs (Parts List Variation Sheet) were presented during the inspection:

- 11-AMS02PDS-740.01 rev / - A1 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A2 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A3 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A4 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A12 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A14 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A15 can be considered closed.
- 11-AMS02PDS-740.01 rev / - A18 can be considered closed.

The H/W has been visually inspected and is ok:no damage, visible clean is ok.

## CONCLUSION

All solder joints are of adequate quality, the soldering process complies to ECSS-Q-70-08A and ECSS-Q-70-38A, all modifications are performed according to ECSS-Q-70-28A.

| | Operator | Quality Assurance | C.C. |
|---|---|---|---|
| Signature | | E. FRANCIM | C. CINQUEPALMI |
| Date | | 24/07/08 | 24/7/08 |